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REMARKS

Claims 1-65 are pending in this application. Claims 1-24 and 59-64 have been amended. Claims 1, 25, 49 and 59 are independent claims.

Applicants thank the Examiner for the indication that Claims 4, 8, 14-16, 19 and 62-64 contain allowable subject matter.

Claim 12 was rejected under 35 USC 112, first paragraph, as failing to comply with the enablement requirement. Specifically, "Claim 12 recites the limitation 'wherein the transponders in each of the transponder pairs operate at a different wavelength'. Applicants respectfully traverse this rejection, and submit that this recitation is supported at least at paragraph [0054]. Based on the teachings provided therein, Applicants submit that one of ordinary skill in the art would be enabled to make and/or use the invention.

Claim 41 was also rejected under 35 USC 112, first paragraph, as failing to comply with the enablement requirement. Specifically the limitation "wherein the network management element employs a routing and wavelength assignment algorithm" is allegedly not described in the specification in such a way as to enable one skilled in the art to make and/or use the invention. Applicants again respectfully traverse this rejection, and submit that this recitation is supported at least at paragraph [0048]. In addition, Applicants submit that routing and wavelength assignment algorithms are well known in the art, and that those of ordinary skill in the art can implement them in a straightforward manner. Reconsideration and withdrawal of the Section 112, first paragraph rejections are respectfully requested.

Claims 1-24, 59-61 and 62-64 were rejected under 35 USC 112, second paragraph, as being indefinite. Specifically, the Action notes that it is "unclear whether claim 1 claims a 'WDM optical communication system' or a 'node' that is included in said WDM optical communication system".

Claims 6 and 23-24 were also rejected under 35 USC 112, second paragraph, for antecedent basis issues. The claims have been carefully reviewed and amended to address the Examiner's concerns. Reconsideration and withdrawal of the Section 112, second paragraph rejections are respectfully requested.

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35 USC 103(a) rejections

Claims 1, 3, 5-7, 9, 20, 23-26, 38-40, 42-46, 48-50, 55, 59, 61 and 65 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,697,546 B2 (Ibukuro et al.) in view of US Patent Application Pub 2004/0085345A1 (Galou et al.).

Claims 1-3, 20, 24-26, 38-40, 42-45, 48-49, 59 and 61 were rejected as being unpatentable over U.S. Patent 6,084,694 (Milton et al.) in view of US Patent 6,411,412 B1 (Jiang et al.) and Galou

Dependent Claim 10 was rejected as being unpatentable over Ibukuro, Galou and US Patent 6,587,470 B1 (Elliot et al.).

Dependent Claims 11-13 were rejected as being unpatentable over Ibukuro, Galou, Elliot and US Patent 6,414,765 B1 (Li et al.).

Dependent Claims 17-18 were rejected as being unpatentable over Ibukuro, Galou and US Patent 6,295,149 B1 (Meli).

Dependent Claims 21-22, 27-34 and 60 were rejected as being unpatentable over Ibukuro, Galou and US Patent 6,321,255 B1 (May, Jr. et al.).

Dependent Claims 35-37 and 56-57 were rejected as being unpatentable over Ibukuro, Galou and US Patent 5,995,256 (Lee).

Dependent Claim 41 was rejected as being unpatentable over Ibukuro, Galou and US Patent Application Pub. 2003/0163555 A1 (Battou et al.).

Dependent Claim 47 was rejected as being unpatentable over Ibukuro, Galou and US Patent 6,516,105 B1 (Khusid et al.).

Dependent Claims 51-54 and 58 were rejected as being unpatentable over Ibukuro, Galou and Li.

Each of the rejections is respectfully traversed in light of the following discussion, and reconsideration is requested.

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Independent Claim 1 is directed to a node, in a WDM optical communication system that includes a plurality of nodes interconnected by communication links, the node including a first plurality of transponders each generating and/or receiving an information-bearing optical signal at a different channel wavelength from one another, an optical coupling arrangement transferring the channel wavelengths between a link connected to the node and the first plurality of transponders, *the arrangement being adaptable to reconfigure its operational state to selectively direct different ones of the channel wavelengths from the link to different ones of the transponders without disturbing the optical path through the node traversed by any other channel wavelengths*, and a communications and configuration arrangement transferring data identifying the respective channel wavelengths at which the transponders operate from the transponders to the optical coupling arrangement and, *in response to the transferred data, reconfiguring the operational state of the optical coupling arrangement.*

The node of independent Claim 59 includes a plurality of transmitters, each generating an information-bearing optical signal at a different channel wavelength from one another, and a communications and configuration arrangement transferring data *identifying the respective channel wavelengths* at which the transmitters operate from the transmitters to the optical switch and *reconfiguring the optical switch in response thereto* so that the plurality of ports are assigned channel wavelengths respectively corresponding to the distinct wavelengths of the transmitters received in the plurality of ports.

Independent method Claim 25 is directed to a method for assigning channel wavelengths to a plurality of ports of an optical switch, the method receiving a plurality of transmitters in the plurality of the ports of the optical switch, the transmitters being operable at distinct wavelengths from one another, obtaining data from the transmitters identifying one or more operating characteristics of the transmitters, the operating characteristics including the respective distinct wavelengths at which the transmitters operate, and *based on the data obtained from the transmitters, configuring the optical switch so that the plurality of ports are assigned channel wavelengths respectively corresponding to the distinct wavelengths of the transmitters received in the plurality of ports.*

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Independent Claim 49 is directed to a method for automatically provisioning a service in an optical transmission system having a plurality of nodes at least one of which includes at least one optical switch, by identifying a transponder coupled to a given port of an optical switch, the transponder being associated with the service to be provisioned, and *configuring the optical switch* so that the given port is assigned a channel wavelength *based at least in part on the identification of the transponder*.

The Action states in paragraph 12 that “Ibukaro does not teach an arrangement for transferring data identifying channel wavelengths at which the transponders operate”, and then turns to the alleged teachings of Galou as teaching “a network management system for providing configuration management and network inventory management. The Action then concludes that it would have been obvious to “include a network management system, as taught by Galou, in the communication system of Ibukuro because it allows effective management of the system”.

Applicants respectfully submit that the Action fails to address the limitations – and specifically, fails to state where, in either Ibukaro or Galou, the Applicants may find a teaching or even suggestion of a node that includes an optical coupling arrangement that is *adaptable to reconfigure its operational state to selectively direct different ones of the channel wavelengths from the link to different ones of the transponders without disturbing the optical path through the node traversed by any other channel wavelengths*, and a communications and configuration arrangement *transferring data identifying the respective channel wavelengths at which the transponders operate from the transponders to the optical coupling arrangement*, and, *in response to the transferred data, reconfiguring the operational state of the optical coupling arrangement*.

The Action directs Applicants to paragraphs [0112] through [0134] of Galou as teaching a “network management system”. Galou may be directed to a network management system, but Applicants do not merely claim a ‘network management system’, but rather, an arrangement, such as a network management system, that performs the specific functions set forth in each of the claims, such as reconfiguring the operational state of an optical coupling arrangement in response to data transferred from the transponders identifying channel wavelengths at which the transponders operate.

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Again, Applicants can find no teaching or suggestion in Galou of the elements recited in each of independent Claims 1, 25, 49 and 59 (and acknowledged in the Action as *not taught by Ibukuro*).

Galou is directed to “managing complex cross-connects: instead of flipping through multiple windows to find the desired link, the operator can simply specify the endpoints” (Abst.). The paragraphs noted in the Action merely list configuration management features of the NETSMART network management system. The Action does not however provide any indication as to where a teaching of the recited element of “an optical coupling arrangement that is adaptable to reconfigure its operational state in response to transferred data identifying the channel wavelengths at which transponders operate” may be found, either individually in the cited art, or in the combined references. Rather, the Action simply relies upon Galou for teaching a network management system to “allow effective management of the system”.

For at least the foregoing reason, Applicants respectfully submit that each of independent Claims 1, 25, 49 and 59 is patentable over the combined teachings of Ibukuro and Galou.

The rejection based upon Milton, Jiang and Galou notes that “(a) Milton does not teach transponders and (b) Milton does not teach an arrangement for transferring data identifying channel wavelengths at which the transponders operate”. The Action then turns to Jiang and Galou, as allegedly teaching (a) and (b), respectively.

For the reasons noted above, Applicants again submit that Galou fails to teach or suggest “an optical coupling arrangement that is adaptable to reconfigure its operational state *in response to transferred data identifying the channel wavelengths at which transponders operate*” – should the Examiner maintain this rejection, clarification as to the where such a teaching may be found in Galou, or in any of the other art of record, is respectfully requested.

In addition, Applicants respectfully submit that it would not be “obvious to one of ordinary skill in the art” to combine the alleged teachings of Ibukuro and Galou, or Milton, Jiang and Galou, in the manner suggested. Again, the analysis presented in the Action simply relies upon Applicants’ *own specification* as an ‘instruction manual’ to

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pick and choose elements from several references in order to "build" an obviousness rejection, which of course is improper. The Action fails to provide a sufficient indication of the requisite motivation, suggestion or teaching, *in the prior art*, to support a prima facie case of obviousness. Rather, the Action relies upon impermissible hindsight based on Applicants' teachings, to piece together the alleged teachings of the references.

For all of the foregoing reasons, each of independent Claims 1, 25, 49 and 59 is believed patentable over the art of record.

Dependent Claims 2-24, 26-48, 50-58 and 60-65 are believed to be clearly patentable for all of the reasons indicated above with respect to Claims 1, 25, 49 and 59, one or another from which they depend, and even further define over the art of record by reciting additional distinguishing limitations.

Since the Applicants have fully responded to the rejections set out in the Office Action, it is respectfully submitted that in regard to the above remarks that the pending application is in condition for allowance and prompt review and issuance is accordingly requested. Should the Examiner be of the view that an interview would expedite consideration of this Amendment or of the application at large, request is made that the Examiner telephone the Applicants' undersigned attorney at (908) 518-7700 in order that any outstanding issues be resolved.

Respectfully submitted,

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Date


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